

Remarks

Claims 1-9 and 17-19 were pending in this application, of which claims 10-16 have been canceled without prejudice or disclaimer of the subject matter therein. It is submitted that the pending claims define allowable subject matter.

The Examiner is thanked for indicating claims 5 and 7-9 to be allowable. Claims 5 and 7 have been rewritten in independent form. It is respectfully submitted that claims 5 and 7 remain allowable and are now in condition for allowance.

Claims 1-4 and 17-19 have been rejected under 35 USC § 102(b) as being anticipated by Takahashi et al. (USP 6,447,170). Claim 6 has been rejected under 35 USC § 103(a) as being unpatentable over Takahashi et al. (USP 6,447,170) in view of Sawada (USP 5,692,923). Applicants respectfully traverse these rejections for reasons set forth hereafter.

Claim 1 recites, among other things, a plug, a receptacle, a deflectable latch and first and second latch mating elements. Takahashi lacks, among other things, the deflectable latch as defined in claim 1. Claim 1 defines deflectable latch to include a beam disposed along one of the side walls of the plug. The beam has a front end secured to the plug housing proximate the front end of the plug housing. The beam extends from the front end of the plug housing rearward toward the rear end of the plug housing. The beam has a rear, free-standing end which is biased toward the plug to permit the plug and receptacle to be mated with one another.

In contrast, Takahashi describes a plate-like beam portion 23 that extends from a side edge at an opening of box portion 22. At the center portion of the beam portion 23, a receiving hole 24 is provided for receiving the engaging poll 19 of the cover portion 15. In addition, the top end portion of the beam portion 23 close to the insertion end includes a pair of triangular protrusions 25 having slopes on the fore and aft sides.

Simply stated, the beam portion 23 is directed in the exact opposite direction as the beam recited in the deflectable latch of claim 1. Claim 1 clearly defines the front end of the beam to be secured to the front end of the plug housing. Claim 1 further defines that the beam extends from the front end rearward toward the rear end of the plug housing and that the beam has a rear free-standing end which is biased toward the plug. In contrast, the beam portion 23 of Takahashi is secured to the lock release member 13 at the rear of the holding member 12 and is free at the front end of the holding member 12.

The arrangement of the claimed deflectable latch affords various advantages in operation, optional use with a TPA, and the like. Operation of the deflectable latch is described, among other places, at paragraph 40 of the present application. The beam portion 23 of Takahashi would experience different forces and operate differently than the claimed latch. In view of the foregoing, it is respectfully submitted that Takahashi fails to teach or suggest the electrical connector assembly of claim 1.

The secondary reference to Sawada fails to make up for the deficiencies of Takahashi. Sawada is only cited for its alleged teachings relative to a keying feature. While applicants disagree with the combination of Takahashi and Sawada with respect to keying features, the deficiencies are even more apparent with respect to the deflectable latch of claim 1. Sawada describes a lock arm 11, having a proximal end, with a long projection 12 provided on the upper face of the lock arm 11.

In contrast, claim 1 defines the deflectable latch to include first and second latching projections that are biased toward the plug and that extend from opposite sides of the beam. Sawada's lock arm 11 substantially differs from that of claim 1 and from that of Takahashi. In view of the foregoing, it is respectfully submitted that the combined teachings of Takahashi and Sawada neither anticipate nor render obvious the assembly of claim 1.

It is further submitted that the dependent claims define patentable subject matter. Claim 2 defines the plug to include a cutout portion underlying the rear end of the latch beam to permit

increased inward deflection. In Takahashi, the latch beam 23 is firmly secured at its rear end to the lock release member 13. Consequently, Takahashi's connector is fundamentally incapable of having a cutout portion underlying the rear end of the latch beam to permit increased inward deflection. The front end of Takahashi's beam portion 23 is the free standing flexible portion, not the rear end.

Claim 3 defines the rear end of the latch beam to include a beveled interface for permitting increased inward deflection. Again, in Takahashi the rear end of the latch beam 23 is securely formed integral with the lock release member 13 and does not include a beveled interface. Nor is the rear end of the latch beam 23 of Takahashi capable of inward deflection.

In view of the foregoing comments, it is respectfully submitted that the pending claims fail to teach or suggest the claimed invention. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,



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